ITEM 54 FY93
04DS31
31 May 1991

PURCHASE DESCRIPTION

PULSED CARRIER GENERATOR

GE8NN-B

1.0 GENERAL This procurement requires a solid-state RF generator providing pulsed RF, video pulses or CW outputs.

2.0 CLASSIFICATION The equipment shall meet the requirements of MIL-T-28800( ), Type III, Class 5, Style E, Color R for Navy shipboard, submarine, and shore applications with the following modifications and exceptions:

a. The Electromagnetic Interference requirements of MIL-T-28800 are limited to CE01, CE03, CS01, CS02 (0.05 to 100 MHz), CS06, RE01 (back panel search excluded), RE02 (14kHz to 10 GHz), and RS03.

3.0 OPERATIONAL REQUIREMENTS

3.1 Carrier Frequency Range: At least 10 to 120 MHz

3.1.1 Accuracy: ±1% of dial indication

3.2 Output Amplitude

3.2.1 CW: 0.5 Vrms minimum into 50 Ω

3.2.2 Pulsed RF: 0.5 Vrms minimum into 50 Ω

3.2.3 Video Pulse: ±3V peak minimum into 50 Ω

3.3 Attenuator

3.3.1 Range: At least 100 dB in 1 dB steps

3.3.2 Accuracy: ±0.1 dB/step

3.3.3 VSWR: 1.2:1

3.4 Pulse Characteristics

3.4.1 Rate: 50 pps to 5 kpps

3.4.2 ON/OFF Ratio: At least 70 dBc

3.4.3 Width: Variable, 100 ns to 100 μs

3.4.4 Rise and Fall Time: Less than 20 ns for video pulse, and less than 10 ns for pulsed RF

3.4.5 Sync Output: At least 2.0 V peak into 10 kΩ with 20 ns rise time, and at least 35 ns ahead of the pulsed RF

3.5 External Inputs

3.5.1 Trigger: Pulses at least 2 V peak, and at least 50 Hz to 5 kHz

3.5.2 Modulation: Pulses at least 2 V peak, and at least 50 Hz to 5 kHz

3.5.3 Oscillator: At least 1 Vrms, 10 to 120 MHz

4.0 GENERAL SPECIFICATIONS

4.1 Power: 115/230 Vac ±10% single phase, 50/60 Hz, 30 watts maximum

4.2 Dimensions: The total volume of the unit shall be nominally 33,233 cm^3 (2028 in^3).

4.3 Weight: 13.2 kg (29 lb) nominal

4.4 Calibration Interval: The calibration interval shall be at least 12 months minimum. The equipment shall be within all accuracy requirements specified herein, with a 72% or greater confidence factor following a calibration interval of 12 months.